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ABSTRACT

The 1989 publication, "Curriculum and Evaluation Standards for School Mathematics" provides a vision and a framework for revising and strengthening the K-12 mathematics curriculum in North American schools and for evaluating both the mathematics curriculum and students' progress. When completed, it is expected that the Addenda Series will consist of 22 supporting books designed to interpret and illustrate how the vision could be translated into classroom practices. Targeted at mathematics instruction in grades K-6, 5-8, and 9-12, the themes of problem solving, reasoning, communication, and connections are woven throughout the materials, as is the view of assessment as a means of guiding instruction. This booklet in the Grades 5-8 series addresses the issues and concerns of student behavior called "number sense." The booklet contains two parts, an introduction and a section made up of various number sense activities. The introduction attempts to give meaning to the phrase "number sense" as it is used throughout the 1989 "Curriculum and Evaluation Standards," describing "an intangible quality possessed by successful mathematicians" which is often equated to conceptual understanding. The role of the teacher in developing number sense by creating a classroom environment that nurtures number sense and in evaluating performance is also discussed. Included in the second section is a selection of 43 problems and activities, appropriate for

middle-grade classrooms, that develop number sense. The activities are placed in the following eight categories: (1) An Expanded Activity; (2) Reasonableness; (3) Relative Size of Numbers; (4) Whole Number Computation; (5) Fractions; (6) Decimals; (7) Percents; and (8) Measurement and Graph Interpretation. Lists of references and recommended reading are also provided. (MDH)

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